

Physiotherapists and drug administration: A survey of practices in New South Wales

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A self-administered, 61-item questionnaire, which inquired about the administration of prescription medications by physiotherapists, was mailed to a random sample of 25 per cent of clinical physiotherapists registered in NSW ($n = 660$). About one quarter of respondents, who were more likely to be private practitioners, administered prescription medications to their clients, 40 per cent of which occurred on a daily or weekly basis. The majority had approval from a physician and prescription medications were given as an integral part of the treatment regimen. More than 50 per cent of those physiotherapists who did administer prescription medications had no formal training in this practice except the little they had received in their undergraduate course.

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In their clinical practice, physiotherapists are often expected to assist in administering medications to their clients. This may be performed in order to reduce pain prior to treatment or to assure a client's medication regimen. However, there are limitations as to particular drugs a physiotherapist in the State of New South Wales may legally supply, administer or use in their practice. This is dependent upon whether or not the substance is included in the NSW Poisons List and related schedules. A policy statement of the NSW Physiotherapists Registration Board (NSWPRB) (1996) outlines these limitations. Products included in Schedule 4 of the Poisons List (antibiotics, Panadeine Forte, Ventolin respirator solution) may not be supplied by a physiotherapist but the practitioner may administer such products to a particular client if the product has been obtained by that client. In doing so, physiotherapists have a professional responsibility to ensure that they have the particular skills to administer the medication. The administration of the medication must be in accordance with the directions of the physician as shown on

the dispensing label. If the physiotherapist believes that a client may benefit from the use of a Schedule 4 product, the client must be referred to a physician for a decision. Similar restrictions exist for Schedule 2 or Schedule 3 products such as Panadeine, Ventolin metered aerosol and certain non-steroidal anti-inflammatory drugs (NSAIDs), the only difference being that these may be supplied by a pharmacist. There are no restrictions on the supply of products that are not included in any schedule of the Poisons List. Nevertheless, physiotherapists have the professional responsibility to ensure that they are thoroughly familiar with the product that is being supplied, including dosage and any possible side effects. The physiotherapist should also ensure that the product is not likely to interact with any other medication the client is taking. Herbal preparations that have been prepared specifically for a client by a herbalist, as distinct from a commercial preparation, should not be administered to the client unless the physiotherapist has full knowledge of the contents (NSW Physiotherapists Registration Board 1996).

All the Physiotherapists Registration Boards in the other States of Australia, except Queensland and Tasmania, have adopted the NSW policy, with some making minor amendments such as using advice from their State's pharmaceutical branch of the Health

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Department. The Physiotherapists Registration Board of Queensland does not have any policy regarding prescription and/or any other medications. Instead, the Physiotherapists Act 1964 (Qld) Section 24B states: "A physiotherapist shall not prescribe any drug or medicine to any person for internal use".

The Physiotherapists Registration Board of Tasmania does not have a specific policy because the Poisons Act states clearly that "no physiotherapist can administer prescription medications unless approved by a physician" (Australian Health Ministers Advisory Council 1996).

As well as this policy statement giving guidance to physiotherapists in regard to their limitations in their professional use of medications, Ethical Principle Number 4 of the Australian Physiotherapy Association (1994) states that physiotherapists should: "Recognise the extent and limitations of their professional expertise and undertake only those activities that are within their professional competence".

Despite these guidelines for the administration and supply of medications, there is evidence that physiotherapists may be breaching their responsibilities in this regard. Brooks (1993) noted his concern for the common use of NSAIDs for the treatment of acute sports injuries by physiotherapists and sports medicine practitioners. He comments that it is dangerous to administer NSAIDs because of the relationship with the various side effects such as the risk of peptic ulcer formation. Brooks suggests that NSAIDs are perhaps being promoted to physiotherapists as a useful treatment for soft tissue rheumatic complaints although he does not suggest who may be conducting this promotion. Because some NSAIDs can be purchased over the counter without a physician's prescription, patients may not be warned by pharmacists about the medication's potential harmful effects. Also, if these medications are provided by physiotherapists, as sometimes occurs, they may not be given adequate

Table 1: Characteristics of respondents compared with physiotherapists registered and currently working in New South Wales, 1993

	Physiotherapists registered and currently working in NSW		Respondents	
	<i>n</i>	%	<i>n</i>	%
Number of physiotherapists working in NSW	2662		660	25% of population
Main job:				
Private	1359	53.1	243	51.8
Public	1199	46.9	223	47.5
Both	not available		3	0.6
Gender:				
Female	2174	82.2	385	82.3
Male	469	17.7	83	17.7
Work location:				
Sydney	1660	65	279	60.1
Newcastle/Wollongong	276	11	43	8.9
Other in NSW	615	24.1	143	30.8

warning about the effects.

Further concerns of physiotherapists administering medications inappropriately were raised from the findings of a critical care practices survey commissioned by the NSWPRB (1992). These findings determined that approximately 40 per cent of physiotherapists were involved in the administration of drugs. A limitation of this survey was that it was not clear how respondents interpreted the question, but concern was raised that physiotherapists could be administering medications for which they were not authorised.

In response to these concerns, a discussion paper (available from the authors) on administration of medications by physiotherapists was submitted by a task group as part of a strategic plan for the School of Physiotherapy at The University of Sydney, the only physiotherapy school

in NSW, (School of Physiotherapy 1994). The paper was based on information from the NSWPRB. The major concern was that if physiotherapists are indeed advising or suggesting that their patients take medications, then they are currently not educated to do so. Undergraduate students receive approximately 14 hours of pharmacological content in their entire course. This was considered by the NSWPRB to be inadequate if they are advising patients. The NSWPRB recommended that students be provided with some knowledge such as the dangers of advising patients to take medication without an adequate understanding of the side effects and interactions with other medications. This discussion paper also considered improving education about medications for physiotherapists in order to cope with the proposed changes in the health care system. These changes assume the

Table 2: Administration of prescription medications by type of practice.

	Yes		No		Total respondents	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Do you administer prescription medications?						
Public practitioners	88	39.6	39	16.2	127	27.4
Private practitioners	134	60.4	202	83.8	336	72.6
Total	222	100	241	100	463	100

Significant difference between administration of prescription medications by public and private practitioners $\chi^2 = 31.94$, $df = 1$, $p < 0.001$

likelihood that physiotherapists will have a greater role in treating patients in the community environment, as well as physiotherapists having to compete with multi-skilled primary health care practitioners.

Although there are no restrictions on physiotherapists supplying and administering over-the-counter (OTC) medications, there is a concern that physiotherapists have insufficient education to be aware of the possible consequences of OTC medications and the danger of mixing these with prescription medications. This was alluded to in the School of Physiotherapy discussion paper (1994). The danger of mixing OTC and prescription drugs is emphasised by Tolbert (1987) and Randolph (1995). Tolbert states that, on any given work day, more than half of all adult Americans take prescribed drugs for health care and maintenance of work competence. The physiotherapist must not only consider OTC medication interaction with prescription medications but also be familiar with the medication and its effects and be prepared for adverse reactions to certain medications. Over-the-counter drugs must not be seen as being of innocuous substance merely because they do not require a prescription.

The present study was conducted to gain an insight into the practices of

physiotherapists in administering prescription medications. For the purposes of this survey, "medication" was defined as substances which are ingested, injected or applied topically to restore or preserve health. "Prescription medications" were those supposed to be prescribed by a physician and/or dispensed by a pharmacist.

Method

A questionnaire was developed in consultation with the NSWPRB and practising physiotherapists. The questionnaire comprised 11 questions on the topic of the administration of prescription medications (available on request from the authors). The draft of the questionnaire was piloted in multi-stage phases. Firstly, five physiotherapists completed the questionnaire in their own time. The researchers then held discussions with them individually, regarding any difficulties in completing it. The questionnaire was then revised and re-trialled by another five physiotherapists. The total questionnaire required approximately 30 minutes to complete.

The questionnaire was mailed to a random selection of 25 per cent of physiotherapists who were registered with the NSWPRB; were currently

practising in NSW; working more than 16 hours per week; and not working in administration or educational institutions full time. Six hundred and sixty questionnaires were mailed to respondents who were asked to complete and return them in a provided reply-paid envelope. The anonymity of the respondents was protected by having no identification number or name on the questionnaire. In order to ascertain who had completed the questionnaire and to avoid unnecessary follow-up mailings, respondents also completed a reply-paid postcard which was returned to a different address. This meant that their name could not be connected with their questionnaire. After three weeks, a follow-up letter and duplicate questionnaire was sent to the non-respondents. After two months, 472 completed questionnaires were returned, and nine were returned as undeliverable. This was a response rate of 72.5 per cent, which is considered to be excellent for a lengthy, self-administered, mailed survey (Babbie 1998).

Characteristics of respondents

The respondents to the survey represented a balanced sample of practising physiotherapists in NSW (See Table 1). The majority of respondents had had a significant amount of experience working as physiotherapists, with only 2.8 per cent ($n = 13$) having worked for less than five years. There was an even distribution between the respondents' sector of work with almost half (47.5 per cent, $n = 223$) working in public practice and a little more than half (51.8 per cent, $n = 243$) working in private practice. There was a range of level of seniority with one third (37.0 per cent, $n = 79$) being Grade 1 physiotherapists, 28.4 per cent ($n = 62$) Grade 2, 17.9 per cent ($n = 39$) Grade 3, 2.8 per cent ($n = 6$) Grade 4, 0.9 per cent ($n = 2$) Grade 5, none in Grade 6 and 13.8 per cent ($n = 30$) Grade 7. The majority of respondents treated most of their clients in their consulting rooms (43.2 per cent, $n = 202$). The main areas of practice by the

Table 3: Frequency of administration by those who do administer prescription medications

Frequency of administration	Daily		Once a week		Monthly		Less Frequently		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Public	16	17.9	22	24.7	12	13.5	39	43.8	89	100
Private	1	2.6	9	23	5	12.8	24	61.5	39	100
Total	17	13.3	31	24.2	17	13.3	63	49.2	128	100

respondents were musculoskeletal (55.9 per cent, *n* = 261) followed by sports physiotherapy (36.8 per cent, *n* = 172) rehabilitation (22.3 per cent, *n* = 104) manipulative physiotherapy (21.2 per cent, *n* = 99), geriatrics (16.9 per cent, *n* = 79), cardiopulmonary (12.6 per cent, *n* = 59) and smaller numbers in other areas. Although the majority of respondents were female (82.3 per cent, *n* = 385) there was no sex imbalance in that this reflects the sex ratio of currently practising physiotherapists in NSW. Similarly, there was no apparent bias in the study in the address of respondents, even though most practised in Sydney (60.1 per cent, *n* = 279). Relatively few respondents were bilingual and gave professional advice to clients in a language other than English (8.2 per cent, *n* = 38).

Results

The survey examined various aspects of the administration of medication by physiotherapists. It was found that more than one quarter (27.4 per cent, *n* = 127) of the respondents reported administering prescription medication to clients (Table 2). About 40 per cent (*n* = 48) of these physiotherapists administer prescription medications on a daily or weekly basis (Table 3). Most respondents have this approved by a physician. (Table 4). Usually those clients who are administered prescription medications are referred to physiotherapists by physicians 'every time' while a small number replied that the client is referred from 'most times' to 'never' (Table 5).

Table 4: Frequency of physician approval of medication administration by physiotherapists

Frequency	<i>n</i>	%
Every time (100%)	109	85.8
Most times (75%)	7	5.5
Half the time (50%)	3	2.4
Sometimes (25%)	5	3.9
Never (0%)	3	2.4
Total	127	100

Table 5: Frequency of clients to whom physiotherapists administer prescription medication are referred by physicians

Frequency	<i>n</i>	%
Every time (100%)	99	76.7
Most times (75%)	17	13.2
Half the time (50%)	4	3.1
Sometimes (25%)	8	6.2
Never (0%)	1	0.8
Total	129	100

Most (85 per cent, *n* = 108) keep a record in the client's file every time that the prescription medication is administered whilst 12.6 per cent do so between 25-75 per cent of the time. Very few (2.4 per cent, *n* = 3) never keep a record.

The main form of administration of prescription medications is using

bronchodilators (84.6 per cent, *n* = 110) followed by topical agents (29.2 per cent, *n* = 38), pain killers (16.2 per cent, *n* = 21), non-steroidal anti-inflammatory drugs (NSAIDs) (6.9 per cent, *n* = 9), antibiotics (6.2 per cent, *n* = 8) and other drugs such as sedatives, epilepsy drugs, muscle relaxants and corticosteroids (8.5 per cent, *n* = 11). The number of private practitioners who do administer prescription medications (*n* = 39) was too small to conduct valid statistical analysis on which type of practice administered certain kinds of medications. Of those administering prescription medications, 82.8 per cent (*n* = 106) did so by inhalation, 27.3 per cent (*n* = 35) topically, 13.3 per cent (*n* = 17) orally, and 14.1 per cent (*n* = 18) by iontophoresis or sonophoresis.

Dosage is usually that recommended by a physician (93.8 per cent, *n* = 121). Others decide on the dosage by following instructions accompanying the medication (24 per cent, *n* = 31) or from clinical experience (17.1 per cent, *n* = 22), according to instructions in a standard drug directory such as MIMS (16.3 per cent, *n* = 21), by considering the severity of the condition (8.5 per cent, *n* = 11), on the basis of information provided by clients (8.5 per cent, *n* = 11) or from carers (7 per cent, *n* = 9).

According to the majority of respondents (76.6 per cent, *n* = 98), the main reason given for engaging in administering medications is because it is an integral part of the treatment regimen. However, many (50 per cent, *n* = 64) report that they do so because a

Table 6: Sources of physiotherapists' training in the administration of prescription medications

Information source	n	%
Physiotherapy undergraduate course	145	81.0
Discussion with doctors	91	50.8
Discussion with other physiotherapists	80	44.7
Discussion with other health professionals	53	29.6
Reading physiotherapy literature	38	21.2
Reading other disciplines' literature	26	14.5
Drug companies	23	12.8
Physiotherapy conferences	21	11.7
Physiotherapy postgraduate course	17	9.5
APA workshop	14	7.8
Other conferences	7	3.9
Other postgraduate course	4	2.2
Other undergraduate course	5	2.8
Other sources	23	12.8

physician has requested it of them or that clients are incapable of taking the medication themselves (18 per cent, $n = 23$). Sometimes the medication is administered because a nurse or doctor is unavailable to do it (14.8 per cent, $n = 19$) or another health worker asks them (14.1 per cent, $n = 18$) or else the client's carer asks them (7.8 per cent, $n = 10$). Other respondents (10.9 per cent, $n = 14$) administered prescription medications "to encourage patients in intensive care to use patient controlled analgesia (PCA)", "to relieve patient's pain", "when teaching clients how to use medication (such as bronchodilators) themselves", "measuring pre- and post-treatment volumes" or "administering medication prior to therapy".

The conditions when prescription medications are most often administered are cardiopulmonary (80.5 per cent, $n = 103$), musculoskeletal (35.2 per cent, $n = 45$) and 'other' (8.6 per cent, $n = 11$) which include postoperative pain, infection and epilepsy, neurological (6.3 per cent) and cancer (1.6 per cent). The most common specific conditions for which the respondents administer

prescription medications are asthma (75.2 per cent, $n = 91$), general respiratory conditions (20.7 per cent, $n = 25$) and arthritis (14 per cent, $n = 17$).

The respondents were asked whether being able to legally administer prescription medications would improve their service to clients. Almost half (49.1 per cent, $n = 221$) felt that it would not improve their service, whereas a quarter (22.9 per cent, $n = 103$) believed that it would improve their service to clients. The remainder (28 per cent, $n = 126$) were unsure. The respondents' comments which follow express their desire to be able to administer drugs legally in order to enhance their clients' treatment:

- *Due to physiotherapists' knowledge of anatomy and assessment techniques, it would be invaluable for us to be able to inject and prescribe anti-inflammatory agents, eg more appropriate steroidal injection for rotator cuff injuries.*
- *...when you tour with a team and there is no doctor you become the medical officer responsible for minor illness as well.*
- *The ability to administer intravenous pain relief and take blood gas samples*

would be of great use to me clinically.

All respondents were asked about their training in administration of medications. In spite of the relatively widespread nature of this practice, well over half (58.6 per cent, $n = 268$) reported that they had not been formally trained in the administration of prescription medications. Only one-third (38.5 per cent, $n = 176$) said that they have been trained and 2.8 per cent were unsure. Of the 176 respondents who indicated that they had been trained, most reported (92 per cent, $n = 162$) training in inhalation methods of drug administration, one-third (28.4 per cent, $n = 50$) had learned about iontophoresis and/or sonophoresis and a quarter about topical (24.4 per cent, $n = 43$) and oral (22.7 per cent, $n = 40$) applications. Some reported having been trained to give injections (6.8 per cent, $n = 12$) and others (4.5 per cent, $n = 8$) have been trained in such methods as PCA, suppositories and rectal Valium.

The majority (81 per cent, $n = 145$) of respondents reported that they received training in prescription medications as undergraduate physiotherapy students (Table 6). They also received training from discussion with physicians (50.8 per cent, $n = 91$), other physiotherapists (44.7 per cent, $n = 80$), other health workers (29.6 per cent, $n = 53$), from reading physiotherapy professional literature (14.5 per cent, $n = 26$), from drug company representatives (12.8 per cent, $n = 23$), physiotherapy conference presentations (11.7 per cent, $n = 21$) and physiotherapy postgraduate courses (9.5 per cent, $n = 17$).

Many respondents were keen to have more training in pharmaceuticals and their management, as they believed it would enhance their overall treatment. The following are examples of their comments:

- *A knowledge of anti-inflammatory medications (indications, contraindications, side effects) is vital to effective and efficient management of acute inflammatory disorders. Further undergraduate education is important.*

- *A general update on certain medications would be great, eg effects of new blood pressure tablets or new anti-inflammatories.*
- *I understand that the APA frowns upon physiotherapists suggesting NSAIDs for patients - however they often have a vital role in treatment and I do suggest them for patients who are not referred to me from a doctor. I would feel happier if my knowledge was better - is there any chance of a small user friendly 'drug guide for physios'?*
- *It's an area that needs attention - changes in pharmacology and blind acceptance of alternative medicine, need to have an avenue of regular update provided so that clients can have confidence in our knowledge. As first contact practitioners I feel we are vulnerable regarding our responsibilities in this area.*

Bivariate analysis

Bivariate analysis was conducted to ascertain any relationships between the administration of medications and demographic or clinical practice. It has been suggested that, compared with English monolingual practitioners, bilingual health workers are often under some pressure to provide a wider range of services to non-English speaking clients. This is because of the non-English speaking clients' inability to fully comprehend advice given to them by other English speaking health practitioners. However, in this study, administration of medications was *not* associated with bilingual ability ($\chi^2 = 2.81$, $df = 3$, $p > 0.05$). Administration of prescription medications was associated with type of practice ($\chi^2 = 31.94$, $df = 1$, $p < 0.0001$) with private practitioners being more likely to engage in this behaviour than those employed in the public sector (Table 2) but frequency of administration was not (Table 3). It was not possible to examine the association between the practice of administration of medications and years of experience as a physiotherapist or location of practice (urban/rural), due to the high proportion of cells with low expected frequencies. It was thought that a change in the curriculum of physiotherapy students

would produce differing reports of degree of training in the administration of medication. However, there were conflicting results when the association between training in the administration of medication, year of graduation and years of experience as a physiotherapist were examined. A statistically significant relationship was found between amount of training in medications and year of graduation ($\chi^2 = 13.41$, $df = 6$, $p < 0.05$) but an analysis of residuals indicated that the association was primarily due to graduates in the periods between 1975 and 1985 and 1965 and 1975 rather than recent graduates (after 1985) or older graduates (before 1965). As well, no relationship was found between amount of training in medications and years of experience ($\chi^2 = 6.57$, $df = 4$, $p > 0.05$). This is surprising, since experience is undoubtedly highly correlated with year of graduation.

Conclusions and implications

Although the study found that one-quarter of the physiotherapists who were surveyed reported administering prescription medication to clients, the matter is not as grave as it may appear, because respondents have such administration approved by a physician. As well, clients to whom prescription medication is administered, are usually referred to physiotherapists by physicians. Interestingly, although only 13 per cent of those surveyed gave their specialisation as cardiopulmonary, bronchodilators accounted for 85 per cent of medications administered by physiotherapists.

Whilst it is reassuring to find that almost all physiotherapists surveyed do not administer prescription medications without the supervision of a physician, there are small numbers who may be surpassing their professional role and possibly exposing their clients to danger and themselves to sanction. These are most likely to be physiotherapists in private practice. Physiotherapists should be reminded of the law related to this matter.

These findings raise a number of

issues, some of which are basic to the practice of physiotherapy and its place in the health care system. One quarter of respondents believe that being able to administer prescription medications would improve their service to clients. This figure corresponds with the proportion who reported administering prescription medication. The aspirations of part of the profession need to be balanced with training and responsibility.

It may be that providing students with some training in the administration of prescription medication in their undergraduate courses gives tacit approval of the practice by educators, or is perceived as such by students. In any event, such training as is provided should emphasise the need for scrupulous record keeping of administered prescription medication.

Another issue is the possibility of mandatory continuing education, a component of which probably should be the availability of new medications and their impact on physiotherapy treatments. Some other professions require a certain amount of education credits in order for practitioners to continue their registration, and a similar system might be considered by physiotherapy regulatory and professional bodies.

A difficult issue raised by these data is that of demarcation in the health professions. A relatively large number of physiotherapists, despite their lack of sufficient training and legal sanction to administer prescription medications, are doing it. If they are asked to do so by physicians or administer medication because no physician or nurse is available to do it, it may be considered to the physiotherapists' credit that they are co-operative and do their best to assist clients. However, this needs to be balanced with responsibility, part of which involves adequate, certified training and strict and comprehensive record keeping.

The results indicate that much of the administration of prescription medication performed by physiotherapists occurs in

cardiopulmonary practice. Perhaps this practice should be separated from other physiotherapy practice so that it is a separate occupation or a physiotherapy specialist area with a postgraduate credential.

There is also some indication in these findings that private practitioners may need more regulation since they are more likely to administer prescription medication. These physiotherapists in particular need to be made aware of their responsibilities and legal restrictions on the health care services they provide. Another issue that needs to be explored is the relationship between aspirations to see an improvement in the prestige of the physiotherapy profession and the administration of medication.

Overall, the study found that physiotherapists behave responsibly and professionally with respect to the use of prescription medications. Many realise the importance of considering medication in the course of treatment they provide, and keep records of medication their clients take. However, many also report inadequate training about medication and this may explain some lax practices such as not keeping comprehensive records or only occasional inquiries about medication. The time is ripe for the profession as a whole to consider the issue of involvement in medication, determine a policy and implement it.

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References

- Australian Health Ministers Advisory Council (1996): Standards for the Uniform Scheduling of Drugs and Poisons. Commonwealth Department of Human Services and Health.
- Australian Physiotherapy Association (1994): Ethical Principles. Melbourne, Victoria.
- Babbie E (1998): The Practice of Social Research. (8th ed.) Belmont, California: Wadsworth.
- Brooks P. (1993): Inappropriate prescribing of NSAIDs. (Letter to the Editor) *Australian Prescriber* 16: 77.
- NSW Physiotherapists Registration Board (1992): Critical Care Practices Survey. Surry Hills, NSW.
- NSW Physiotherapists Registration Board (1996): Policy Statement: Medicines to be supplied, administered or used by physiotherapists. Surry Hills, NSW
- Physiotherapists Act (1964) Queensland. Part 4 - Miscellaneous: 19-20 (Government Printing Office, 14 December 1995).
- Randolph SA (1995): Over-the-counter medications. *American Association of Occupational Health Nurses* 43: Advisory page (insert).
- School of Physiotherapy (1994): Discussion paper on administration of medications by physiotherapists. Task 1 for School Board meeting June 23, 1994. The University of Sydney.
- Tolbert R (1987): Health professionals should monitor workers' over-the-counter drug use. *Occupational Health and Safety* 56: 52-55, 66.